

and making progress difficult. As these birds fly they utter a high-pitched note like "teep, teep." The bird I shot was settled on a broad grass-blade just off the side of the road. It was in the company of another, and I waited there for some time in hopes of obtaining this one also, but I did not get a chance. I saw it several times flash across the road, uttering its "teep, teep"; but I do not profess to be able to shoot rocketing Humming-birds. Once it settled on the telephone-wire, but would not allow a close enough approach for my small charge.

I saw a few *Eulampis holosericeus*, but having already obtained this species in Dominica, I did not molest them further than to shoot one specimen to make sure of its identity. This one was too much smashed to be of any use as a specimen.

In concluding these notes I must express a hope that some one more learned than myself will corroborate my views as to the colouring of the plumage in the different sexes of *Tkalurania wayleri*. I must also tender my best thanks to Sir Henry Blake, Governor of Jamaica, Mr. Templar, Administrator of Dominica, and Sir Charles Bruce, Governor of the Windward Islands, for their kind permit to collect birds; also to Dr. Nicholls, of Dominica, for the loan of all his books on West-Indian avifauna, which I found most useful during my stay in Dominica.

XLVI.—*A Visit to Dassen Island, the home of the Jackass Penguin.* By W. L. SCLATER, M.A., F.Z.S., M.B.O.U., Director, South African Museum.

IN Cape Town and its neighbourhood may frequently be seen Malays and other coloured men carrying large green eggs, which they sell to the inhabitants at about two shillings a dozen. These eggs are the product of the Black-footed or Jackass Penguin (*Spheniscus demersus*), the only member of this group of birds found on the South African coast. They are brought to Cape Town chiefly from Dassen Island,

and are a source of considerable revenue to the Colonial Government.

Being naturally anxious to see the breeding-place of the Penguins, I took an opportunity afforded me of going to the island in the company of an officer of the Public Works Department, who was paying his monthly visit of inspection to the lighthouse there.

Dassen Island lies some forty miles to the north of Cape Town up the coast, being about six miles from the nearest point of the mainland, and the island or its lighthouse is the first bit of South Africa seen from the steamers when arriving from England.

Leaving Table Bay in a small steamer about 1 A.M. on the 8th of July, we reached the island at about 6.30, just before daybreak. We landed close to the house of Mr. Almeda, the Agent of the Colonial Government who has entire charge of the island, and soon after proceeded to the lighthouse, which is situated towards its southern extremity about a mile distant. The island is low and flat, and hardly rises more than 20 or 30 feet above the level of the sea; it is about two miles long and one mile across at its widest point. There are no trees on the island, but at the time of my visit it was covered with a fresh growth of green herbage, which later on, I was told, would attain a height of 5 or 6 feet. Everywhere the ground was riddled with short wide burrows, not more than a foot or so in depth, and each of these burrows was the home of a pair of Penguins. It was impossible to look in any direction without seeing countless numbers of these birds. When approached, they as a rule scuttle down into their burrows and lie down there, twisting their heads round and round and looking at one in the most comical way possible. If molested they endeavour to defend themselves by snapping with their bills, and are able to inflict a considerable bite if a hand or foot be placed incautiously near them. If prevented from retreating into their burrows, they waddle away in the usual upright position, and if hard pressed flop down on their bellies and scramble along on all fours, so to speak, endeavouring if possible to reach the sea.

Here and there could be seen solemn troops marching in regular order two and two across the rocks that line the beach, to the sea, to get their breakfast. If an approach was made with care and aided by a little gentle whistling, it was quite possible to get within three or four yards of the birds. According to the information I obtained from Mr. Almeda, the Penguins are to be found breeding here the whole year round, and certainly I found on this occasion both eggs and young in various stages of development. The egg-season lasts from the 15th of February to the 15th of August, and it is only during that time that they are collected. Mr. Almeda has a number of men in his service who march every day in a long line across the island in different directions, each man provided with a basket and a kitchen ladle tied to the end of a long stick, which he uses for scooping the eggs out of the burrows from underneath the birds. The average number of eggs obtained in this way amounts to about 300,000 per annum. This does not include the incubated and broken eggs, so that the number taken altogether must be not less than half a million, and the revenue derived from this source reaches upwards of £700 a year.

The other birds which I observed on the island were first of all Gulls of two species, *Larus dominicanus* and *Larus hartlaubi*. These two Gulls are also to be found everywhere along the coast in the neighbourhood of Cape Town, but do not breed, so far as I was able to ascertain, on Dassen Island. The Sacred Ibis (*Ibis aethiopica*), known to the Dutch Colonists as the "Schoorsteenveger," or Chimney-sweeper, was also seen on Dassen Island, and is stated to breed here in considerable numbers, although I did not myself find the nests.

The most important and numerous, however, of all the birds inhabiting the island are the Cormorants, or Duykers (Divers) as they are called in South Africa. Of these, no less than 4 species breed here; these are the large White-breasted Duyker (*Phalacrocorax lucidus*), the Trek Duyker (*P. capensis*), the Bank Duyker (*P. neglectus*), and the Reed Duyker (*P. africanus*).

There is only one other species of Dwyker found in South Africa; this is the European Cormorant (*P. carbo*), which can be at once distinguished by its crest and by the white patch on its thighs. This bird is apparently rather rare here, but there is a stuffed specimen in the South African Museum which was obtained in the Caledon district.

The White-breasted Dwyker (*P. lucidus*) is not very numerous on the island; it was breeding at the time of my visit, but unfortunately, owing to want of time, I was unable to visit the nests. It is readily known by its much larger size and by its white underparts. The Bank Dwyker (*P. neglectus*) is smaller and of about the same size as the Trek Dwyker (*P. capensis*), from which it can be distinguished by the absence of the naked yellow skin beneath the eye and round the base of the mandible, which is so characteristic of the Trek Dwyker. Furthermore, whereas the iris of the Common Dwyker is entirely green, that of the Bank Dwyker is yellow in its upper moiety and green beneath.

I found the Bank Dwyker breeding towards the north end of the island. Its nest was constructed of seaweed, and in it were three eggs of the usual chalky-blue colour, measuring about 2.25×1.50 inches. The birds were so bold and fearless that it was possible to walk right up to the nest and pull them off it.

The Reed Dwyker (*P. africanus*) is a smaller bird with a much longer tail. Of this species I found a number of nests all close together, almost interlaced in fact, covering a low rock not far from the other Dwykers. These birds, however, were not so tame as the Bank Dwyker; they flew off when we got within six or seven yards of them. The nest in this case was built entirely of sticks, and the eggs closely resembled those of the other species, except that they were smaller, measuring 1.75×1.25 inch.

Finally the fourth and last Cormorant found here is the Trek Dwyker (*P. capensis*). This bird is of about the same size as *P. neglectus*, but can be at once distinguished by the yellow skin at the base of the beak. It is far the commonest of all the Dwykers in the western part of the colony, and

breeds in very large numbers on Dassen Island during the months from August to January.

This bird is a very important one commercially, as from it is derived the guano which, together with the Penguin eggs, yields a considerable income to the Cape Government. The guano is scraped up from the rocks on which the Duykers sit, and also from the nests after the breeding-season is over. The time for collecting the guano begins in December and continues until May, after the Duykers have finished breeding. I was told by Mr. Almeda that about 800 tons had been collected during the seasons 1895-96.

I left the island about 12 midday, reaching Cape Town about 4 o'clock the same afternoon, after a very smooth and enjoyable passage. In addition to the birds already mentioned as occurring on the island, I was able to distinguish during the journey home the Grey-backed Albatross or Mollymawk (*Diomedea leucophrys*). The Wandering Albatross (*D. exulans*) is not commonly seen until considerably further south. Another bird observed in large numbers on this excursion was the Cape Solan Goose, or Malagash (*Sula capensis*). This bird, which is also a great guano-producer, is never found breeding on the same islands as the Penguins and Duykers. It nests, I was told, on some islands in Saldanha Bay; further north, on Ichaboe, which is in the neighbourhood of Angra Pequena, in German South-west Africa; and on Bird Island, in Algoa Bay. The only other bird commonly seen in these waters is the so-called "Cape Hen" (*Majaqueus æquinoctialis*).

In conclusion, I may say a few words on the subject of the working of these guano-islands, taken from information derived from the Government reports.

The islands are nineteen in number. They are, beginning from the north:—Ichaboe and Penguin Islands, off Angra Pequena; Elephant's Rock and Bird Islands, off the coast of the Van Rhijnsdorp division of the colony; an islet in Lambert's Bay, Clanwilliam division; North-west Rocks, St. Helena Bay; Paternoster Island, Marcus Island, Jutten Island, Jacob's Rock, Malagash Island, Schaapen-Meeuwen



BLACK-FOOTED PENGUINS AT SALDANIA BAY.

Island, Foundling Island, Yzerklip Rock, and Dassen Island, off the Malmesbury division coast; Vogelstein, Duykerklip in Hout's Bay; Seal Island in False Bay, off the coast of the Cape Division; Dyer's Island, off the Caledon coast; the islands near the mouth of the Ratel River, Breedersdorp division; Seal Island, in Mossel Bay; and St. Croix Island, in Algoa Bay.

From these islands 2857 tons of guano were obtained during the season 1893-94, and 3200 tons in 1894-95.

The guano is shipped in bulk to Cape Town, where it is sold directly to the farmers of the western part of the colony, the price per ton being fixed at £6 10s. The profit derived from this industry amounted in 1893-94 to £12,600, and in 1894-95 to £13,100. The report for the current year has not yet been issued, so that no figures can be given for the season 1895-96.

The accompanying illustration (p. 524) has been prepared from a photograph most kindly given to me by Dr. Stark, M.B.O.U. It was taken, not on Dassen Island itself, but at Saldanha Bay, where Penguins are also found breeding, but it very accurately represents the scenery of the islets and the attitude of these birds.

XLVII.—*On the Birds of the Philippine Islands.*—Part VIII.*

The Highlands of Negros. By W. R. OGILVIE GRANT.

With Field-Notes by JOHN WHITEHEAD.

ON the 28th of February Mr. Whitehead once more left Manila *en route* for the island of Negros, which lies in the centre of the Philippine group, and remained there till the end of April. Concerning this expedition he writes as follows:—"After much trouble, sun-broiling, starvation, want of baths, &c., I commenced collecting at the foot of the active volcano Canloon, in Central Negros." This mountain has an elevation of about 7000 feet. He then goes on to give a list of the principal birds obtained, adding some

* For Part VII, see p. 457.